TECHNICAL REVIEW: AIR PERMIT BY RULE

Permit No.:	83798	*Company Name:*	CES Environmental Services, Inc.	*APD Reviewer:*	Mr. Innocent Onuoha
Project No.:	135618	*Unit Name:*	Oil Quality Improvement Operation	*PBR No(s).:*	106.261, 106.262, and 106.472

EPN	Description	Capacity (gallon)	Authorization	Emissions	
				lb/hr	tpy
OT-1	Wet Base Oil Tank	16, 800	106.472(1)	0.11	0.01
OT-2	Wet Base Oil Tank	16, 800	106.472(1)	0.11	0.01
OT-3	Oily Water Treatment Tank	16, 800	106.472(1)	0.06	0.02
OT-4	Wet Base Oil Treatment Tank	16, 800	106.472(1)	0.11	0.01
OT-5	Centrifuge Feed Tank	16, 800	106.472(1)	0.06	0.02
OT-6	Wet Base Oil Tank	16, 800	106.472(1)	0.11	0.01
OT-7	Oily Water Tank	16, 800	106.472(1)	0.06	0.02
OT-8	Oily Water Tank	16, 800	106.472(1)	0.06	0.02
OT-9	Mixed Molecular Weight Petroleum Hydrocarbons Storage	16, 800	106.261 and 106.262	1.50	0.02
OT-10	Distillation Feed Tank	16, 800	106.472(1)	0.08	0.27
FO-1	Centrifuged Oil Storage Tank	7, 518	106.472(1)	0.04	0.02
WT-1	Water Storage	7, 518	N/A	0	0.01
ST-1	Sulfuric Acid Storage Tank	4,000	106.472(5)	0.000375	0.0000000202
ET-1	Emulsion Breaker Storage Tank	270	106.261	0.15	0.03
SV-1	Centrifuge	N/A	106.261	0.06	0.02
SV-1	Vacuum Distillation System	N/A	106.261	0.07	0.31
OL-1	Product Loading	N/A	106.472(1) & 106.261/106.262	0.09	0.02
OF-1	Oil Improvement Area Fugitives	N/A	106.261/106.262	0.16	0.71
Total				**2.83**	**1.47**

Calculation Methodology

Emissions from the tanks are calculated using AP-42 factors.

The MSDS for the oil specifies a vapor pressure < 0.1 mmHg) (<0.002psia). Because the oil handling tanks are heated to approximately 200F, the higher pressure of 0.1psia is used.

Tank OT-9 is not heated. The temperature of Tank OT-9, sulfuric Acid Tank, and the Emulsion breaker Tank are calculate din accordance with AP-42. The speciation of emissions from Tank OT-9 is calculated using the maximum content of each component, generally being 30%, with the balance of the composition being water.

Loading and unloading of the mixed weight petroleum hydrocarbons between the processes and truck tanks and other transport vessels is vapor balanced back to the storage tank. As a result there are no emissions from the loading activities except from the disconnecting of loading lines.

Emissions from the loading of oil into transport vessels are calculated in accordance with AP-42.

Emissions from disconnecting of hoses are calculated assuming that the vapor volume inside the hose is saturated with the last material to pass through the hose. It also assumes that all of the residual liquid in the line, which is calculated with the clingage factor from AP-42 Chapter 7, evaporates.

Fugitive emissions from potential leaks at valves, pumps, and connections associated with this project are calculated using the methods and emission factors specified in the TCEQ Document "Air Permit Technical Guidance for Chemical Sources: Equipment Leak Fugitives". A thirty percent reduction credit for operations personnel monitoring for leaks that can be detected with visible, auditory, or olfactory means